

Texas Emergency / Trauma System Outcome Review

Mortality Review

The State Trauma Registry will define the top three E-Codes causing mortality in each RAC as well as the State from 1999 forward.

Top E-codes	1999	2000	2001	2002	2003	2004

The State Trauma Registry will compare the E-Codes for mortality in Texas to the National and Regional causes of mortality from 1999 forward.

Top E-Codes	National E-Codes for Mortality 2002	Texas Mortality E-Codes 2002	National E-codes for Mortality 2003	Texas Mortality E-codes for Mortality 2003	National E-codes for Mortality 2004	Texas Mortality E-codes for Mortality 2004

The Department of Epidemiology will calculate Texas' overall trauma mortality by including those individuals that die at the scene as well as those that die in hospitals as a result of trauma injuries from 1999 forward.

Mortality	1999	2000	2001	2002	2003	2004
Scene trauma deaths						
Hospital trauma deaths						
Total						

Causes of Injury

The State Trauma Registry will define the top five E-Codes that cause activation of the 911 and EMS system from 1999 forward.

E-Codes Activating 911 / EMS	1999	2000	2001	2002	2003	2004

The State Trauma Registry will define the top five E-codes that cause trauma admission from 1999 forward.

Trauma Center Admission E-Codes	1999	2000	2001	2002	2003	2004

Unable to capture

The Department of Epidemiology will define the top five injury E-Codes that cause individuals to seek emergency health care from 1999 forward.

Emergency Department Evaluation E-Codes	1999	2000	2001	2002	2003	2004

Regional Assessment

Each RAC will have defined protocols for EMS Field Triage.

RAC	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1999																						
2000																						
2001																						
2003																						
2004																						
2005																						

All EMS agencies participating in the RAC have linked the regional field triage protocols to their standards of operation.

RAC	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1999																						
2000																						
2001																						
2003																						
2004																						
2005																						

All trauma centers participating in the RAC have linked their trauma activation protocols to the field triage protocols.

RAC	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1999																						
2000																						
2001																						
2003																						
2004																						
2005																						

All trauma centers participating in the RAC will monitor their over and under triages.

RAC	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1999																						
2000																						
2001																						
2003																						
2004																						

2003																						
2004																						
2005																						

Each RAC will have systems in place to monitor diversion activities.

RAC	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1999																						
2000																						
2001																						
2003																						
2004																						
2005																						

Each RAC will define the average scene response times and average transport times and monitor variances.

RAC	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1999																						
2000																						
2001																						
2003																						
2004																						
2005																						

All EMS medical directors should participate in the RAC activities and have offices within the defined region.

RAC	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1999																						
2000																						
2001																						
2003																						
2004																						
2005																						

All air medical service medical directors should participate in the RAC activities and have offices within the defined region.

RAC	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1999																						
2000																						
2001																						

2003																						
2004																						
2005																						

All designated trauma centers should participate in the RAC committees and activities.

RAC	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1999																						
2000																						
2001																						
2003																						
2004																						
2005																						

Define the number of designated trauma facilities from 1999 forward.

Trauma Facilities	1999	2000	2001	2002	2003	2004
Level IV						
Level III						
Level II						
Level I						

Define the number of physician trauma providers participating in the RAC from 1999 forward.

Trauma physicians	1999	2000	2001	2002	2003	2004
Trauma surgeons						
Emergency Medicine						
Anesthesia						
Ortho						
Neuro						

Define the number of trauma facilities that dropped out of the trauma system from 1999 forward.

Trauma Facilities	1999	2000	2001	2002	2003	2004
Level IV						
Level III						
Level II						
Level I						

Define the number of trauma facilities that provide physician trauma on-call compensation for the following disciplines:

Emergency Medicine
 Trauma / General Surgery
 Orthopedics
 Neurosurgery
 Anesthesia

For these same group of physicians define if their on-call compensation increased from 2003 to 2005.

Define the number of EMS providers who expanded their coverage or upgraded their services from 1999 forward.

EMS Upgrades	1999	2000	2001	2002	2003	2004
Fire-Based EMS						
Hospital Based EMS						
Private EMS						
Volunteer EMS						

Define the number of EMS agencies that discontinued their services or down graded their services from 1999 forward.

EMS Upgrades	1999	2000	2001	2002	2003	2004
Fire-Based EMS						
Hospital Based EMS						
Private EMS						
Volunteer EMS						

Define the number of air medical services that have expanded their services or upgraded their services from 1999 forward.

Air Medical Upgrades	1999	2000	2001	2002	2003	2004
Fire-Based						
Hospital Based						
Private						
Other						

Define the number of RAC air medical services available from 1999 forward.

RAC	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1999																						
2000																						
2001																						
2003																						
2004																						
2005																						

Disaster / Crisis Management Response

Each RAC will have systems in place to notify all EMS providers and hospitals of activation of a mass casualty response.

RAC	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1999																						
2000																						
2001																						
2003																						
2004																						
2005																						

Each RAC will have systems in place that can define capacity within the region during a mass casualty response for the following:

Services available

Decontamination capabilities

ICU capabilities

Isolation capabilities

Helipad access

EMS ambulance capabilities

Air medical service capabilities

Each RAC will have systems in place for interoperative communication between public health, local emergency planning center, police, fire, EMS, and hospitals.

RAC	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1999																						
2000																						
2001																						
2003																						
2004																						
2005																						

Each RAC will have systems in place for public notification and education in mass casualty situations.

RAC	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1999																						
2000																						
2001																						
2003																						
2004																						
2005																						

Each RAC will have collaborative traffic and access plans for EMS routes to each trauma center.

RAC	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1999																						
2000																						
2001																						
2003																						
2004																						
2005																						

Each RAC will have systems in place to coordinate, manage, evaluate and track mass movement of casualty patients from their RAC to another RAC.

RAC	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1999																						
2000																						
2001																						
2003																						
2004																						

Each RAC can define the number of specific trauma provider courses offered from 1999 and forward. These courses include but are not limited to:

Annual conferences / seminars
 BTLS / PHTLS
 Farm Medic
 ATLS
 ATCN
 TNCC
 ENPC / PALS
 CATN
 SANE Nurse Examiner Courses
 Pediatric trauma courses
 Geriatric trauma courses
 OB trauma courses
 Suicide awareness
 Alcohol awareness
 BDLS / ADLS
 Bioterrorism / disaster training

Injury Prevention

Define the RACs participation in Injury Prevention Coalitions from 1999 forward.

RAC	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1999																						
2000																						
2001																						
2003																						
2004																						
2005																						

Define the RACs participation in the following injury prevention programs from 1999 forward.

Child safety seat programs (define how many seats were distributed)
 Bicycle helmet programs (define how many helmets were distributed)
 Violence prevention programs
 Domestic/family violence prevention programs
 Firearm injury prevention programs
 Vehicle crash prevention
 Suicide prevention programs
 Specific teenage suicide prevention programs
 Teenage vehicle crash injury prevention programs

Alcohol prevention/interventions programs
 Geriatric fall prevention programs
 Geriatric vehicle crash prevention programs

RAC injury prevention programs are based on data from the regional trauma registry or the state database.

RAC	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1999																						
2000																						
2001																						
2003																						
2004																						
2005																						

OUTCOME REVIEW

ISS OF 25 or Higher

Trauma Facility	Total Number of Patients	Average LOS	Average ICU LOS	Average Cost	# of Deaths
Level I					
Level II					
Level III					
Level IV					

ISS of 15 to 24

Trauma Facility	Total Number of Patients	Average LOS	Average ICU LOS	Average Cost	# of Deaths
Level I					
Level II					
Level III					
Level IV					

ISS of 9 to 14

Trauma Facility	Total Number of Patients	Average LOS	Average ICU LOS	Average Cost	# of Deaths
Level I					
Level II					
Level III					
Level IV					

ISS of 0-8

Trauma Facility	Total Number of Patients	Average LOS	Average ICU LOS	Average Cost	# of Deaths
Level I					
Level II					
Level III					
Level IV					

CONSIDER EVALUATION OF MECHANISM CRITERIA FOR TRAUMA ACTIVATION:

Rollover, unrestrained driver

Intrusions greater than 12 inches

Death of occupant in vehicle

Child with airbag deploy

ATV or motorized recreational vehicle with driver / rider separation

Bullet vehicle crashes with non-compatible vehicles